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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/412,362	10/05/1999	Manfred Jendick	PM256642	9601

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EXAMINER

HUYNH, LOUIS K

ART UNIT PAPER NUMBER

3721

DATE MAILED: 09/12/2003

39

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/412,362

Applicant(s)

JENDICK, MANFRED *en*

Examiner

Louis K. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2003 and 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-82,90,91,93-96 and 98-112 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-82,90,91,93-96 and 98-112 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 34.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 14, 2003 and June 18, 2003 have been entered.

Claim Objections

2. Claim 99 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or rewrite the claim(s) in independent form. Claim 99 should be rewritten in an independent form for the claim is drawn to different scopes of invention, in particular to a can with a laser engraved tab, and is not further limiting the claim from which it depends.

3. Claims 56 and 103 are objected to because of the following informalities:

“the articles integrated using the strip with the article forming unit” (claim 56, line 2) should be changed to: -- the articles integrated with the strip using the article forming unit--.

“A method a method of” (claim 103, line 1) should be changed to: --A method of--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 44, 56, 63, 74, 75, 90, 91, 93-96, 98, 99, 103-105, 107, 109 and 111 are rejected under 35 U.S.C. 102(e) as being anticipated by Stasiuk (US 6,105,806).

With respect to claims 44, 91 and 93, Stasiuk discloses a method for manufacturing articles to be included in cans including the steps of: intermittently feeding a metal strip (tab stock 90) having an upper surface and a lower surface into an article forming unit (75); and providing an engraving using a laser unit (column 9, lines 21-51). Regarding the limitation of the metal strip being engraved in an immobilized condition, Stasiuk teaches that the metal strip (tab stock 90) must be correctly positioned then being engraved by the laser (column 9, lines 31-39) which implies that the metal strip is engraved while in an immobilized condition. Note that

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the forming unit (75) of Stasiuk is a high speed forming unit; therefore, the metal strip is intermittently fed in periods of rapid movement.

With respect to claims 56 and 74, the forming unit (75) forms tabs integrated with the metal strip (91) from the metal strip (90).

With respect to claims 63, 90 and 95, Stasiuk discloses an apparatus for manufacturing articles to be included in cans including: a supply of a metal strip (tab stock 90); an article forming unit (70); a strip feeder for feeding the metal strip (90) through the forming unit (75); at least one laser unit for providing decorative engraving on the metal strip (column 8, line 39-column 9, line 17); and an inherent control unit in communication with the at least one laser unit to control the at least one laser unit for providing engraving on the metal strip. Regarding the functional limitation of the control unit controls the laser unit so that the laser engravings are provided when the strip is in an immobilized condition, Stasiuk teaches that the metal strip (tab stock 90) must be correctly positioned then being engraved by the laser (column 9, lines 31-39) which implies that the control unit controls the at least one laser unit so that the metal strip is engraved while in an immobilized condition. Note that the forming unit (75) of Stasiuk is a high speed forming unit; therefore, the metal strip is intermittently fed in periods of rapid movement.

With respect to claim 75, Stasiuk discloses in Figure 7 a decorating area (100) for laser engraving the metal strip (90) being arranged adjacent to the forming unit (75) without interfering the operation of the forming unit.

With respect to claims 94 and 96, Stasiuk teaches that the engraving on the metal strip can be a picture, trademarks, icon, character, prize redemption, or other symbolic item (column 3, lines 34-47).

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With respect to claim 98, the metal strip (90) does have a thickness defined between the upper surface and the lower surface. Regarding the limitation of the engravings extend into a metal portion of the metal strip to a depth that is within the thickness of the metal strip, the high powered laser unit disclosed by Stasiuk, such as 200 watt Nd:YAG laser or 600 watt CO2 laser (column 9, lines 13-17), is known to be capable of marking into the metal portion of a metal strip to a desired depth within the thickness of the metal strip.

With respect to claims 99, Stasiuk discloses in Figure 1 a can (10) having a decorative pull tab (40).

With respect to claim 103, Stasiuk teaches that the decorating area (100) for providing laser engravings onto the metal strip can be arranged in any suitable manner including the arrangement of Figure 7 wherein the strip is engraved in the decorating area (100) before the strip is fed into the forming unit (75) (column 7, lines 49-58).

With respect to claim 104, Stasiuk teaches the metal strip can be a coated metal strip (column 7, lines 34-40), and the laser engraving extends through the coating and into the metal surface of the metal strip (Figure 12).

With respect to claims 105 and 109, Stasiuk teaches the metal strip can be a coated metal strip (column 7, lines 34-40), and the laser engraving extends through the coating (Figure 12).

With respect to claims 107 and 111, Stasiuk discloses in Figure 10 that a can end (120) can be formed and provided with a laser engraving (BRAND EQUITY logo) for traceability using the method and apparatus disclosed in the Stasiuk reference (column 9, line 60-column 10, line 20).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 45, 61, 62, 64, 80-82, 100-102, 106, 108, 110 and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stasiuk (US 6,105,806).

With respect to claims 45 and 64, the method and apparatus of Stasiuk meets all of applicant's claimed subject matter but lacks the specific teaching of the specific depth of the laser engravings. However, Stasiuk teaches that the exact depth of the laser marking is obvious to a person with an ordinary skill in the art as a matter of engineering designed choice since the laser can be controlled to effect the speed of production (column 9, lines 4-13), and thus does not patentably distinguish the claimed invention over the applied prior art.

With respect to claims 61, 62, 81 and 82, Stasiuk discloses an article to be included in cans to be the pull tabs (124) having known inwardly bent peripheral edge portions (Figure 10), which meets all of applicant's claimed subject matter but lacks the specific teaching of an opening cut in the tab and the engravings being provided between an opening and the bent peripheral edge portion of the tab. However, tab having opening and bent edge portions is well known in the art, and the specific location of the engraving is obvious as a matter of engineering design choice; therefore, it would have been obvious to a person with an ordinary skill in the art, at the time the invention was made, to have modified the method and apparatus of Stasiuk by

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having provided tab having opening and bent edge portions and engraving between the opening and the bent peripheral edge portions of the tab.

With respect to claim 80, it would have been obvious to a person with an ordinary skill in the art to switch off the laser unit when engravings are not needed.

With respect to claims 100, 106, 108, 110 and 112, the method and apparatus of Stasiuk meets all of applicant's claimed subject matter but lacks the specific teaching of the engravings extending a finite depth into the metal strip. However, Stasiuk discloses in the summary of his invention that a decorative tab having uncoated surface is provided with a permanent tab decorative using an optical device (column 3, lines 16-21). Therefore, it would have been obvious to a person with an ordinary skill in the art, at the time the invention was made, to have modified the method and apparatus of Stasiuk by having provided laser engravings that extends a finite depth into the metal strip in order to form permanent tab decorations, which would include prize redemptions.

With respect to claims 101 and 102, Stasiuk teaches that the exact setting of the laser unit is obvious to a skilled person in the art as a matter of engineering designed choice since the laser can be controlled to effect the speed of production (column 9, lines 4-13); therefore, it does not patentably distinguish the claimed inventions over the applied prior art.

9. Claims 46-49 and 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stasiuk (US 6,105,806) in view of Kwon (US 6,160,835).

The apparatus and method of Stasiuk using a laser unit for marking metal strip meets all of applicant's claimed subject matter but lacks the specific teaching of the laser engravings being generated using a beam of laser radiation in the near IR (infrared) wavelength range.

However, Kwon teaches a preferred method of laser engraving using a laser beam in the near IR wavelength range (col. 6, lines 44-56) for marking metal.

Therefore, it would have been obvious to a person with an ordinary skill in the art, at the time of the invention, to have modified the apparatus and method of Stasiuk by having generated a laser beam in the near IR wavelength range, as taught by Kwon, in order to mark the metal strip.

10. Claims 50-55 and 68-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stasiuk (US 6,105,806) in view of Kwon (US 6,160,835) as applied to claims 46 and 65 above; and further in view of Kobsa (US 6,163,010).

The modified apparatus and method of Stasiuk meets all of applicant's claimed subject matter but lacks the specific teaching of transmitting portions of the laser beam through a mode selection element in order to obtain suitable laser mode characteristics.

However, Kobsa discloses a laser system for laser cutting materials comprising: a diode laser pumped Nd:YAG; a laser cavity defined by two end mirrors; and optical elements for improving the laser beam quality; lens system for expanding, collimating, and focusing the laser beam; wherein the optical elements are for selecting modes such as TEM₀₀ (col. 2, line 48-59).

Therefore, it would have been obvious to a person with an ordinary skill in the art, at the time of the invention, to have further modified the method an apparatus of Stasiuk by having

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provided a diode laser pumped Nd:YAG laser system, as taught by Kobsa, so that the generated laser beam could be adjusted properly in order to mark high quality markings on the metal strip.

Note that the Kobsa diode pumped laser Nd:YAG laser system generates the laser beam in the form of pulsed laser radiation (col. 3, lines 15-67). Furthermore, the Kobsa laser system operates with a wavelength of 1.064 mm (col. 3, line 67) which is substantially the IR wavelength.

11. Claims 57-60 and 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stasiuk (US 6,105,806) in view of JP'99 (JP 7-53099).

The apparatus and method of Stasiuk for engraving metal strip meets all of applicant's claimed subject matter but lacks the specific teaching of the guiding elements that guides the metal strip past the laser unit, wherein one of the guiding elements is displaceable and is biased toward the metal strip.

However, JP'99 disclose a guiding system for a strip of material wherein the strip of material (2) is guided between guiding elements (21 and 22) and a cover (16) having openings (20) for print heads (4) to print on the strip of material, wherein one of the guide elements (22) is displaceable and is biased toward the strip of material (2) against the other guide element (21) for keeping the strip of material from fluctuating upward and/or sideways.

Therefore, it would have been obvious to a person with an ordinary skill in the art, at the time the invention was made, to have modified the apparatus and method of Stasiuk by having provide a guiding system having biasing guide element and cover, as taught by JP'99, in order to keep the metal strip from fluctuating upward and/or sideways since laser engraving required high precision placement of the work piece.

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Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis K. Huynh whose telephone number is (703) 306-5694. The examiner can normally be reached on M-F from 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (703) 308-2187. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.




LH

September 10, 2003

Louis K. Huynh
Patent Examiner
Art Unit 3721